

Claims

1. A gripping apparatus comprising two or more gripping members each mounted on support means at a first end thereof, and pivoting means connecting the support means at a location offset from the gripping members, such that the gripping members are moved towards each other to exert a grip on a workpiece positioned between the same as the distal ends of the support means are moved apart.
2. A gripping apparatus according to claim 1 characterised in that the pivoting means includes pivotally connected members which are angled downwardly towards the distal ends of the support means at least when the gripping members are in a closed condition.
3. A gripping apparatus according to claim 1 characterised in that the gripping members move towards each other when placed on the supporting surface under the weight of the apparatus and/or when a downwards or other force is applied to the apparatus.
4. A gripping apparatus according to claim 1 characterised in that the gripping members move apart from each other when the apparatus is lifted from the supporting surface.
5. A gripping apparatus according to claim 1 characterised in that the apparatus can be lifted to move apart the gripping members, without removal from a supporting surface, to allow the insertion of a workpiece between the gripping members.

6. A gripping apparatus according to claim 1 characterised in that the workpiece is gripped by the gripping members under the weight of the apparatus and/or workpiece.
7. A gripping apparatus according to claim 1 characterised in that the pivoting means includes a means to allow a user to apply an external force on the gripping members towards each other.
8. A gripping apparatus according to claim 7 characterised in that the means to allow a user to apply an external force is a plate angled towards the gripping members.
9. A gripping apparatus according to claim 1 characterised in that the distal ends of the support means are in contact with a supporting surface at least during the gripping of the workpiece.
10. A gripping apparatus according to claim 1 characterised in that movement means are provided on the distal end or ends of at least one of the support means to allow movement of the same along a supporting surface.
11. A gripping apparatus according to claim 10 characterised in that the movement means are any or any combination of wheels, rollers, bearings, and/or slides.
12. A gripping apparatus according to claim 1 characterised in that resistance means are provided on the distal end or ends of at least one of the support means to engage a supporting surface and restrict the movement apart of the support means.

13. A gripping apparatus according to claim 12 characterised in that the resistance means includes any or any combination of rubber feet, locks, screws, bolts, weights, abrasive materials, and/or protrusions.
14. A gripping apparatus according to claim 1 characterised in that the support means includes one or more support members in the form of any or any combination of tubes, struts, and/or other resilient members.
15. A gripping apparatus according to claim 1 characterised in that one or more work support members are provided adjacent the gripping members to support the workpiece when not gripped by the gripping members.
16. A gripping apparatus according to claim 15 characterised in that the one or more work support members are extendable.
17. A gripping apparatus according to claim 1 characterised in that the gripping members are detachably connected to the support means.
18. A gripping apparatus according to claim 17 characterised in that the gripping members and support means are provided with attachment means and/or complimentary receiving means to allow the gripping members to be connected to the support means.
19. A gripping apparatus according to claim 17 characterised in that the attachment means and receiving means are tubular, and/or connect together concentrically.

20. A gripping apparatus according to claim 17 characterised in that the attachment means and receiving means connect together in a dovetail joint, such that the gripping members can be slidably mounted on the support members.
21. A gripping apparatus according to claim 17 characterised in that the attachment means and receiving means include any or any combination of screws, nuts, bolts, latches, wedges, and/or locks.
22. A gripping apparatus according to claim 1 characterised in that the gripping members can be provided in different shapes and materials to suit the shape and nature of the workpiece.
23. A gripping apparatus according to claim 1 characterised in that the pivoting means includes a first member connected to first support means via locking means, a second member connected to second support means, the first member pivotally connected to the second member.
24. A gripping apparatus according to claim 23 characterised in that the locking means comprises a slot in the first member and a locking member capable of extending through and sliding along the slot, for locking at least part of the support means in a particular position.
25. A gripping apparatus according to claim 23 characterised in that the top portions of the first and/or second support means, which include gripping members, are hingedly separated from the bottom portions, which include the pivoting means, by hingeing means.

26. A gripping apparatus according to claim 25 characterised in that when at least part of the support means is locked by the locking means, the hingeing means allows the gripping members to move between an open state and a closed state without concomitant movement of the bottom portions.
27. A gripping apparatus according to claim 25 characterised in that the opposite faces of the top and bottom portions are angularly adjustable with respect to each other, and can engage to move the gripping members to a closed state.